

DOCKET NO. NG(ST)6757

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Applicant: Ian Robinson, et al.
Serial No.: 10/706,723
Filed: 12 November 2003
For: *Delta-Sigma Digital-to-Analog Converter Assembly*
Art Unit: 2819
Examiner: Joseph L. Lauture

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INFORMATION DISCLOSURE STATEMENT

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Alexandria, VA 22313-1450

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, publications and other information listed on the attached PTO-1449. A copy of each listed foreign patent document and other publication is enclosed. No U.S. Patents nor any published U.S. Patent Applications are enclosed.

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

(a) Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.

(b) Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

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(b) Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 20-0090 for consideration of this Statement.

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(c) After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

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4. Certification (if applicable)

(a) The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

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Respectfully Submitted,

TAROLLI, SUNDHEIM, COVELL, & TUMMINO L.L.P.

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PTO/SB/08A (08-03)

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete If Known	
Sheet	1	of	2	Application Number	10/706,723
				Filing Date	12 November 2003
				First Named Inventor	Ian Robinson
				Art Unit	2819
				Examiner Name	Joseph L. Lauture
				Attorney Docket Number	NG(ST)6757

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Document Number	Publication Date	Name Of Patentee Or Applicant Of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		Number-Kind Code ² (If Known)	MM-DD-YYYY		
		US-6,191,715B1	02-20-2001	Fowers	Fig. 1
		US-6,291,924B1	09-18-2001	Lau, et al.	Col. 6, line27-53 Fig. 13
		US-6,317,468B1	11-13-2001	Meyer	Fig. 2
		US-6,323,795B1	11-27-2001	Yang, et al.	Fig. 3
		US-2003/017931A1	09-25-2003	Gupta, et al.	Fig. 3
		US-2004/222870A1	11-11-2004	Ueda, et al.	Corresponds to WO 03/050949A1-provided for English language

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code-Number-Kind Code (If Known)				
		EP 0 878 903 A2	11-18-1998	Matsushita Electric Industrial Co., Ltd.	Figs. 1 & 16	
		WO 03/050949 A1	06-19-2003	Fujitsu Media Devices Limited	Abstract (English versions provided) (See EP 1 453 197A1 & US2004/222870A1)	
		EP 1 453 197 A1	09-01-2004	Fujitsu Media Devices Limited	Corresponds to WO 03/050949A1-provided for English language	

EXAMINER
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CONSIDERED

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		Application Number	10/706,723
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		Art Unit	2819
Examiner Name	Joseph L Lauture		
Sheet	2	2	Attorney Docket Number
			NG(ST)6757

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		YONGHONG GAO, ET AL.: "A Fifth-Order Comb Decimation Filter for Multi-Standard Transceiver Applications"; Circuits and Systems, 2000 Proceedings, ISCAS 2000 Geneva, The 2000 IEEE International Symposium on May 28-31, 2000, Piscataway, NJ USA, IEEE, vol. 3, 28 May 2000 (2000-05-28), pages 89-92, XP010502474, ISBN: 0-7803-5482-6 paragraph 0002; Figure 4a	
		MAULIK P C ET AL.: "A 16-Bit 250-KHZ Delta-Sigma Modulator and Decimation Filter"; IEEE Journal of Solid-State Circuits, IEEE Inc. New York, US, vol. 35, no. 4, 1 April 2000 (2000-04-01), pages 458-466, XP001009165, ISSN: 0018-9200; abstract	
		BIRRU D: "Use of Comb Filters for Efficient VLSI Implementation of Reduced Clock Frequency Noise Shapers"; Electronics Letters, IEE Stevenage, GB, vol. 32, no. 14, 4 July 1996 (1996-07-04), pages 1268-1270, XP006005385, ISSN: 0013-5194, abstract	
		ADLER E L: "Surface Acoustic Wave Devices Fundamentals, Current Status, and Future Trends"; NPL, 17 May 1994 (1994-05-17), pages 18-18, XP010269729 Canada; the whole document.	
		S.R. NORSWORTHY, R. SCHREIER, G.C. TEMES: "Delta-Sigma Data Converters"; 1997, Wiley-Interscience, United States of America, XP002322216; pages 309-313, 406-408, 410-421, 197-199, 442-445, 390-394.	
		CHU S ET AL: "Multirate Filter Designs using Comb Filters"; IEEE Transactions on Circuits and Systems, IEEE Inc. New York, US, vol. CAS-31, no. 11, November 1984 (1984-11), pages 913-924, XP002049419 paragraph 0111	
		ABU-AL-SAUD W A ET AL: "Modified CIC Filter for Sample Rate Conversion in Software Radio Systems"; IEEE Signal Processing Letters IEEE USA, vol. 10, no. 5, 5 May 2003 (2003-05-05), pages 152-154, XP002322375 ISSN: 1070-9908, figure 1	
		GALTON I: "Delta-Sigma Data Conversion in Wireless Transceivers" IEEE Transactions on Microwave Theory and Techniques, IEEE Inc. New York, US, vol. 50, no. 1, part 2, January 2002 (2002-01), pages 302-315, XP001085552 ISSN: 0018-9480, paragraph 0001	
		HURST P J ET AL: "Finite Impulse Response Switched-Capacitor Filters for the Delta-Sigma Modulator D/A Interface"; IEEE Transactions on Circuits and Systems, IEEE Inc. New York, US, vol. 38, no. 11, 1 November 1991 (1991-11-01), pages 1391-1397, CP000270297, figure 2	

Examiner Signature	Date Considered

¹EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ² Applicant's unique citation designation number (optional). ³ Applicant is to place a check mark here if English language Translation is attached.

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